

Derek



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET, N.E.  
ATLANTA, GEORGIA 30365

Site:	Lee's Lane
Break:	2.2
Other:	

VIA FEDERAL EXPRESS

Carl Neumayer, Director of Operations and Maintenance  
Louisville and Jefferson County Metropolitan Sewer District  
400 South Sixth Street  
Louisville, Kentucky 40202-2397

October 21, 1992

Re: Lee's Lane Landfill Superfund Site

Dear Mr. Neumayer:

It was a pleasure meeting with you this week concerning the above-mentioned Site. Enclosed, as requested, please find copies of Appendices J, K & L to the O & M plan. Could you please copy the topographic maps for Appendix K and send them back? Appendices J and L are yours to keep.

EPA is having some difficulty tracking down the drilling logs for the Zeigler well since this well and the off-Site A and B wells were placed almost five years ago. Specifications for any of the three wells would suffice to make a monitoring well at the Zeigler residence. Until EPA is able to send you something more accurate, enclosed please find two pages from the December 1987 Removal Action Report. These are merely drillers notes on the off-Site wells A and B, but may be of some value to you in initial estimating.

I will contact you when more information becomes available concerning the off-Site ground-water well construction. Please let me know when the dates for gas well and ambient air sampling are finalized. You may contact me or Derek Matory at any time with questions concerning this project.

Sincerely,

*Patricia C. Fremont*  
Patricia C. Fremont  
Remedial Project Manager  
Kentucky/Tennessee Section

4 Attachments

cc w/o attachments: Rick Hogan, KNREPC



10836078

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Site: Lee's Lane  
Break: 2.2  
Other: vol. 1

EXHIBIT A  
Location Plan

# LEGEND

- EXISTING MONITORING WELL
- TYPE A WELL
- ⊙ TYPE B WELL
- ⊙ TYPE C WELL

SCALE: 1" = 600'

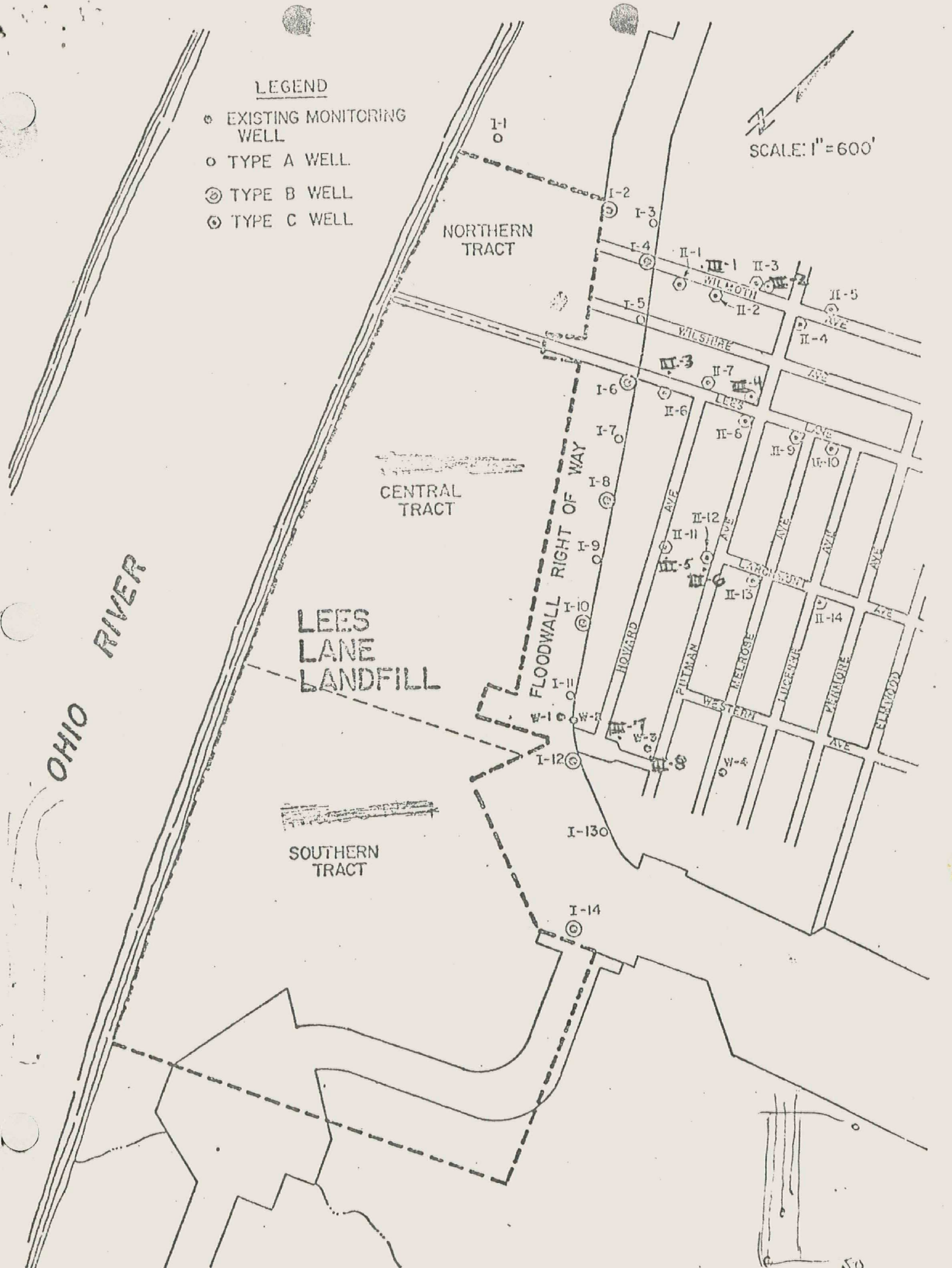


EXHIBIT B

Field Monitoring Results  
For Phase I Wells

FIELD MONITORING AND SAMPLING FORM

Sampling Date July 20, 1978

Sampling Personnel J. Walsh, R. Kinman, S. Nathanson

Time Started 10:45 am

Time Finished 3:00 pm

Weather Conditions Hot with temperatures in low 90's. Humid.

Sunny.

Soil Conditions Very dry since had not rained in several days.

Notes and Observations Pressure readings were not taken since  
manometer and probe valves had not been delivered by supplier.

Gas readings were taken with a Mine Safety Appliances (MSA) Model  
53 Gascope, calibrated specifically for methane. In addition to  
gas readings shown, readings were also taken with an MSA Model  
2A Explosimeter, calibrated for methane. These readings were  
taken for quality control and Explosimeter results corroborated the  
Gascope readings.

*Lower explosive limit = 5%*

Well No.	Water Level	Probe No.	Gascope Readings		Sample taken for GC Analysis	Sample taken for GC/MS Analysis
			Pressure	% LEL Gas		
1	--	1A		40	2	
		1B		100	26	
		1C		100	32	
2	51'-6"	2A		100	72	
		2B		100	72	
		2C		100	76	
3	--	3A		100	58	
		3B		100	68	
		3C		100	68	
4	56'-3"	4A		100	44	
		4B		100	62	
		4C		100	66	
5	--	5A		100	8	
		5B		100	4	
		5C		100	54	
6	55'-6"	6A		100	60	
		6B		100	62	
		6C		100	59	
7	--	7A		100	38	
		7B		100	58	
		7C		100	58	
8	53'-0"	8A		100	30	
		8B		100	34	
		8C		100	32	

Well No.	Water Level	Probe No.	Gascope Readings			Sample taken for GC Analysis	Sample taken for GC/MS Analysis
			Pressure	% LEL	% Gas		
9	--	9A	0"	100	12		
		9B		100	30		
		9C		100	30		
10	50'-8"	10A	1/5"	100	50		
		10B		100	40		
		10C		100	52		
11	--	11A	1/5"	100	45		
		11B		100	54		
		11C		100	55		
12	51'-0"	12A	3/8"	100	66		
		12B		100	66		
		12C		100	66		
13	--	13A					
		13B					
		13C					
14	42'-8"	14A	0"	0	0		
		14B		40	0		
		14C		60	0		

Well No.	Water Level	Probe No.	Gascope Readings		Sample taken for GC Analysis	Sample taken for GC/MS Analysis
			Pressure	% LEL    % Gas		
9	--	9A		100    26		
		9B		100    34		
		9C		100    34		
10	50'-9"	10A		100    48		
		10B		100    22		
		10C		100    56		
11	--	11A		100    52		
		11B		100    60		
		11C		100    62		
12	50'-4"	12A		100    68		
		12B		100    70		
		12C		100    68		
13	--	13A		100    40		
		13B		100    56		
		13C		100    56		
14	(dry)	14A		0    0		
		14B		15    0		
		14C		50    6		



FIELD MONITORING AND SAMPLING FORM

Sampling Date August 4, 1978

Sampling Personnel S. Nathanson.

Time Started 9:00 a.m. Time Finished 2:00 p.m.

Weather Conditions Cloudy and cool with temperatures around 75°.

Soil Conditions Very wet and muddy.

Notes and Observations Water level and methane gas meter readings were recorded on the date shown above (August 4, 1978). A return trip was made on August 14, 1978 to collect gas samples for gas chromatograph (GC) analysis. Only six gas samples were collected since these would be used as a pilot-scale test in determining the effectiveness of sampling and analytical methodologies. Hereafter, more samples will be collected. Pressure readings were again not taken due to the non arrival of probe fittings and valves. These readings are expected to begin for the next visit scheduled for August 18. Groundwater levels have risen from one to two feet in most wells since the last sampling interval.

H	Water Level	Probe No.	Gascope Readings		Sample taken for GC Analysis	Sample taken for GC/MS Analysis
			Pressure	% LEL Gas		
1	--	1A		20	0	X
		1B		100	6	X
		1C		100	8	X
2	53'-0"	2A		100	40	X
		2B		100	40	X
		2C		100	50	X
3	--	3A		100	20	
		3B		100	40	
		3C		100	40	
4	57'-0"	4A		100	0	
		4B		100	30	
		4C		100	32	
5	--	5A		0	0	
		5B		100	0	
		5C		100	40	
6	56'-8"	6A		100	30	
		6B		100	32	
		6C		100	28	
7	--	7A		34	0	
		7B		100	18	
		7C		100	48	
8	54'-0"	8A		100	0	
		8B		100	6	
		8C		100	8	

Well No.	Water Level	Probe No.	Gascope Readings		Sample taken for GC Analysis	Sample taken for GC/MS Analysis
			Pressure	% LEL	% Gas	
9	--	9A		0	0	
		9B		100	0	
		9C		100	26	
10	51'-6"	10A		100	22	
		10B		0	0	
		10C		100	30	
11	--	11A		0	0	
		11B		100	20	
		11C		100	22	
12	51'-4"	12A		100	60	
		12B		100	60	
		12C		100	52	
13	--	13A		100	46	
		13B		100	60	
		13C		100	56	
14	43'-0"	14A		0	0	
		14B		2	0	
		14C		2	0	

FIELD MONITORING AND SAMPLING FORM

Sampling Date August 18, 1978

Sampling Personnel S. Nathanson

Time Started 8:30 a.m. Time Finished 7:30 a.m.

Weather Conditions Sunny and hot with temperatures from 85 to 90°.

Soil Conditions Muddy Standing Water is 2 to 3 inches deep at some well sites.

Notes and Observations

(1) Brass fittings were placed on all 42 of the gas probes.

PVC valves were placed on 25 of the probes. The remaining 17 valves will be installed at the next visit.

2) PVC well caps were removed in order to accommodate the probes, valves, and fittings. Cast iron caps over the entire well housing are still in place.

(3) Cast iron well caps for wells 11 and 13 were dislodged from their concrete emplacement. As a result of this condition the cap from well 13 could not be removed. Therefore, no readings were taken from this well. Materials and equipment for repair of these two wells will be collected on the next sampling date or before.

(4) No difficulty was encountered in removing cast iron well caps now that Teflon tape has been placed on these fittings.

Well No.	Water Level	Probe No.	Gascope Readings			Sample taken for GC Analysis	Sample taken for GC/MS Analysis
			Pressure	% LEL	% Gas		
1	--	1A	0"	100	68	X	
		1B	0"	100	66	X	
		1C	0"	100	69	X	
2	52'-0"	2A	0"	100	65	X	
		2B	0"	100	67	X	
		2C	0"	100	62	X	
3	--	3A	0"	100	60	X	
		3B		100	62	X	
		3C		100	60	X	
4	56'-6"	4A	0"	100	50	X	
		4B		100	63	X	
		4C		100	62	X	
5	--	5A	0"	50	0	X	
		5B		100	42	X	
		5C		100	50	X	
6	57'	6A	3/8"	100	70		
		6B	3/8"	100	70		
		6C	3/8"	100	67		
7	--	7A	1/5"	100	42		
		7B	3/8"	100	58		
		7C	0	100	55		
8	(dry)	8A	1/2"	100	34		
		8B		100	36		
		8C		100	30		

Well No.	Water Level	Probe No.	Gascope Readings			Sample taken for GC Analysis	Sample taken for GC/MS Analysis
			Pressure	% LEL	% Gas		
9	--	9A	0"	100	12		
		9B		100	30		
		9C		100	30		
10	50'-8"	10A	1/5"	100	50		
		10B		100	40		
		10C		100	52		
11	--	11A	1/5"	100	45		
		11B		100	54		
		11C		100	55		
12	51'-0"	12A	3/8"	100	66		
		12B		100	66		
		12C		100	66		
13	--	13A					
		13B					
		13C					
14	42'-8"	14A	0"	0	0		
		14B		40	0		
		14C		60	0		

FIELD MONITORING AND SAMPLING FORM

Sampling Date August 31, 1978

Sampling Personnel Steve Nathanson

Time Started 8:00 a.m.

Time Finished 4:00 p.m.

Weather Conditions Sunny and cool with temperatures from 70 to 80° F..

Soil Conditions Wet and muddy.

Notes and Observations

- (1) The cast iron caps and concrete collars for wells 11 and 13 were repaired.
- (2) PVC valves were installed on the remaining 17 probes. All probes have now been outfitted with fittings and valves and are ready for pressure readings.
- (3) Two pressure readings were recorded for each probe. The first reading was taken when the valve was first opened and thus had the benefit of allowing pressures to build up for 2 weeks. The second reading was recorded after the probe was allowed to release built-up pressure for about 5 seconds.
- (4) The samples which were collected for GC analysis (as shown) were actually collected on September 1.
- (5) No new problems arose on this sampling round.

Well No.	Water Level	Probe No.	Gascope Readings		Sample taken for GC Analysis	Sample taken for GC/MS Analysis
			Pressure	% LEL Gas		
1	--	1A	0"/0"	100	66	X
		1B	0"/0"	100	63	X
		1C	0"/0"	100	60	X
2	53'-9"	2A	0"/0"	100	74	X
		2B	0"/0"	100	70	X
		2C	0"/0"	100	70	X
3	--	3A	0"/0"	100	67	X
		3B	0"/0"	100	68	X
		3C	0"/0"	100	66	X
4	55'-3"	4A	0"/0"	100	58	X
		4B	0"/0"	100	66	X
		4C	0"/0"	100	66	X
5	--	5A	0"/0"	0	0	X
		5B	0"/0"	100	58	X
		5C	0"/0"	100	56	X
6	56'-0"	6A	0"/0"	100	70	X
		6B	0"/0"	100	70	X
		6C	0"/0"	100	64	X
7	--	7A	0"/0"	100	60	X
		7B	0"/0"	100	58	X
		7C	0"/0"	100	58	X
8	(dry)	8A	0"/0"	100	34	X
		8B	0"/0"	100	33	X
		8C	0"/0"	100	30	X



Well No.	Water Level	Probe No.	Gascope Readings		Sample taken for GC Analysis	Sample taken for GC/MS Analysis
			Pressure	% LEL	% Gas	
9	--	9A	0"/0"	100	18	X
		9B	0"/0"	100	30	
		9C	0"/0"	100	30	
10	50'-3"	10A	0"/0"	100	58	X
		10B	0"/0"	100	59	
		10C	0"/0"	100	58	
11	--	11A	0"/0"	100	64	
		11B	0"/0"	100	58	
		11C	0"/0"	100	62	
12	51'-6"	12A	0"/0"	100	70	X
		12B	0"/0"	100	67	
		12C	0"/0"	100	68	
13	--	13A	0"/0"	0	0	X
		13B	0"/0"	100	70	
		13C	0"/0"	100	60	
14	(dry)	14A	0"/0"	0	0	X
		14B	0"/0"	0	0	
		14C	0"/0"	50	10	

## FIELD MONITORING AND SAMPLING FORM

Sampling Date September 16, 1978Sampling Personnel Steve NathansonTime Started 8:00 a.m. Time Finished 4:00 p.m.Weather Conditions Sunny and hot.Soil Conditions Mostly dry although some low-lying areas are a little wet.

## Notes and Observations

- (1) The first pressure reading shown was taken before pressure release. The second reading was taken after the probe was allowed to release the built-up pressure.
- (2) No new problems arose on this sampling round.

Well No.	Water Level	Probe No.	Gascope Reading		Sample taken for GC Analysis	Sample taken for GC/MS Analysis
			Pressure	% LEL Gas		
1	--	1A	0"/0"	100 60	X	
		1B	0"/0"	100 67	X	
		1C	0"/0"	100 64	X	
2	54'-0"	2A	0"/0"	100 66	X	
		2B	0"/0"	100 60	X	
		2C	0"/0"	100 62	X	
3	--	3A	0"/0"	100 60	X	
		3B	0"/0"	100 54	X	
		3C	0"/0"	100 52	X	
4	55'-1"	4A	0"/0"	100 62	X	
		4B	0"/0"	100 54	X	
		4C	0"/0"	100 64	X	
5	--	5A	0"/0"	100 20	X	
		5B	0"/0"	100 40	X	
		5C	0"/0"	100 46	X	
6	55'-8"	6A	0"/0"	100 72	X	
		6B	0"/0"	100 68		
		6C	0"/0"	100 66		
7	--	7A	0"/0"	100 64	X	
		7B	0"/0"	100 67		
		7C	0"/0"	100 58		
8	(dry)	8A	0"/0"	100 30	X	
		8B	0"/0"	100 24		
		8C	0"/0"	100 32		

Well No.	Water Level	Probe No.	Gascope Readings		Sample taken for GC Analysis	Sample taken for GC/MS Analysis
			Pressure	% LEL    % Gas		
9	---	9A	0"/0"	100    20	X	
		9B	0"/0"	100    25		
		9C	0"/0"	100    20		
10	50'-0"	10A	0"/0"	100    60	X	
		10B	0"/0"	100    60		
		10C	0"/0"	100    60		
11	--	11A	0"/0"	100    66	X	
		11B	0"/0"	100    50		
		11C	0"/0"	100    66		
12	50'-8"	12A	0"/0"	100    68	X	
		12B	0"/0"	100    66		
		12C	0"/0"	100    60		
13	--	13A	0"/0"	0    20	X	
		13B	0"/0"	0    60		
		13C	0"/0"	100    62		
14	(dry)	14A	0"/0"	0    0	X	
		14B	0"/0"	100    0		
		14C	0"/0"	100    20		

FIELD MONITORING AND SAMPLING FORM

Sampling Date 10-3-78 (gas) and 9-28-78 (pressure)

Sampling Personnel Kevin Boyer (Gas) and Steve Nathanson (pressure)

Time Started 10:00 AM Time Finished 3:00 PM

Weather Conditions Cloudy, rain on and off all day. Temperature about 70°F.

Soil Conditions Damp but not muddy

Notes and Observations Well I-1 was not monitored. Probes A and B in well I-3 were full of water which prevented the taking of a gas reading. Some water was drawn into the gascope, but the meter continued to function properly.

The male adaptor and valve were removed from Probe I-2A for use in sampling other probes.

The first pressure reading shown was taken before pressure release. The second reading was taken after the probe was allowed to release built-up pressure.

Well No.	Water Level	Probe No.	Gascope Readings		Sample taken for GC Analysis	Sample taken for GC/MS Analysis
			Pressure	% LEL Gas		
1	--	1A	0"/0"	no	sample	
		1B	0"/0"	no	sample	
		1C	0"/0"	no	sample	
2	52'4"	2A	0"/0"	100	83	
		2B	0"/0"	100	84	
		2C	0"/0"	100	82	
3	--	3A	0"/0"	water no	sample	
		3B	0"/0"	water no	sample	
		3C	0"/0"	100	72	
4	58'8"	4A	0"/0"	100	63	
		4B	0"/0"	100	76	
		4C	0"/0"	100	76	
5	--	5A	0"/0"	100	14	
		5B	0"/0"	100	60	
		5C	0"/0"	100	64	
6	59'0"	6A	0"/0"	100	78	
		6B	0"/0"	high vacuum, no flow, no sample		
		6C	0"/0"	100	73	
7	--	7A	0"/0"	100	68	
		7B	0"/0"	100	66	
		7C	0"/0"	100	65	
8	53'9"	8A	0"/0"	100	36	
		8B	0"/0"	100	38	
		8C	0"/0"	100	32	

Well No.	Water Level	Probe No.	Gascope Readings			Sample taken for GC Analysis	Sample taken for GC/MS Analysis
			Pressure	% LEL	% Gas		
9	--	9A	0"/0"	100	10		
		9B	0"/0"	100	35		
		9C	0"/0"	100	35		
10	52'5"	10A	0"/0"	100	60		
		10B	0"/0"	100	57		
		10C	0"/0"	100	60		
11	--	11A	0"/0"	100	62		
		11B	0"/0"	100	62		
		11C	0"/0"	100	60		
12	52'8"	12A	0"/0"	100	70		
		12B	0"/0"	100	73		
		12C	0"/0"	100	73		
13	--	13A	0"/0"	100	55		
		13B	0"/0"	100	72		
		13C	0"/0"	100	72		
14	(dry)	14A	0"/0"	0	0		
		14B	0"/0"	0	0		
		14C	0"/0"	0	0		

## FIELD MONITORING AND SAMPLING FORM

Sampling Date October 15, 1978Sampling Personnel Steven NathansonTime Started 8:45 a.m.Time Finished 4 p.m.Weather Conditions Cloudy and misty with light rain.Soil Conditions Wet and almost completely saturated.

Notes and Observations No new problems were encountered. Although the wet soil caused immersion of the phase II wells, this did not appear to be the case with Phase I wells as field readings could be taken at all 42 Phase I probes.



Well No.	Water Level	Probe No.	Gascope Readings		Sample taken for GC Analysis	Sample taken for GC/MS Analysis
			Pressure	% LEL    % Gas		
1	--	1A	0"	100    52	X	
		1B	0"	100    48	X	
		1C	0"	100    36	X	
2	53'-0"	2A	0"	100    36	X	
		2B	0"	100    28	X	
		2C	0"	100    24	X	
3	--	3A	0"	100    41	X	
		3B	0"	100    38	X	
		3C	0"	100    40	X	
4	56'-6"	4A	0"	100    58	X	
		4B	0"	100    46		
		4C	0"	100    46		
5	--	5A	0"	100    36	X	
		5B	0"	100    42		
		5C	0"	100    39		
6	59'-10"	6A	0"	100    58	X	
		6B	0"	100    54		
		6C	0"	100    62		
7	--	7A	0"	100    50	X	
		7B	0"	100    60		
		7C	0"	100    63		
8	54'-0"	8A	0"	100    52	X	
		8B	0"	100    60		
		8C	0"	100    58		

Well No.	Water Level	Probe No.	Gascope Readings			Sample taken for GC Analysis	Sample taken for GC/MS Analysis
			Pressure	% LEL	% Gas		
9	--	9A	0"	100	42	X	
		9B	0"	100	43		
		9C	0"	100	40		
10	53'-6"	10A	0"	100	52	X	
		10B	0"	100	48		
		10C	0"	100	48		
11	--	11A	0"	100	65	X	
		11B	0"	100	69		
		11C	0"	100	68		
12	52'-9"	12A	0"	100	70	X	
		12B	0"	100	72		
		12C	0"	100	70		
13	--	13A	0"	100	60	X	
		13B	0"	100	50		
		13C	0"	100	59		
14	42'-9"	14A	0"	100	53	X	
		14B	0"	100	51		
		14C	0"	100	63		

## FIELD MONITORING AND SAMPLING FORM

Sampling Date October 21, 1978

Sampling Personnel Steven Nathanson

Time Started 8:30 a.m.

Time Finished 4:00p.m.

Weather Conditions Cool and clear.

Soil Conditions All soil is somewhat wet. Some areas have ponded water, particularly around some of the wells.

Notes and Observations No new problems were encountered. Some of the Phase II probes were immersed in water as water was drawn when the tubes were hand aspirated. However, this problem was not encountered at any of the Phase I wells. All Phase II probes were not immersed in water, and those that did not had negative meter readings for methane.

I	Water Level	Probe No.	Gascope Readings		Sample taken for GC Analysis	Sample taken for GC/MS Analysis
			Pressure	% LEL Gas		
1	--	1A	0"	100	50	
		1B	0"	100	52	
		1C	0"	100	48	
2	53'-8"	2A	0"	100	60	
		2B	0"	100	64	
		2C	0"	100	69	
3	--	3A	0"	100	48	
		3B	0"	100	50	
		3C	0"	100	58	
4	57'-10"	4A	0"	100	60	
		4B	0"	100	65	
		4C	0"	100	67	
5	--	5A	0"	100	49	
		5B	0"	100	58	
		5C	0"	100	57	
6	60'-6"	6A	0"	100	65	
		6B	0"	100	67	
		6C	0"	100	72	
7	--	7A	0"	100	74	
		7B	0"	100	70	
		7C	0"	100	68	
8	54'-8"	8A	0"	100	68	
		8B	0"	100	72	
		8C	0"	100	72	

Well No.	Water Level	Probe No.	Gascope Readings			Sample taken for GC Analysis	Sample taken for GC/MS Analysis
			Pressure	% LEL	% Gas		
9	--	9A	0"	100	72		
		9B	0"	100	68		
		9C	0"	100	70		
10	<u>52'-10"</u>	10A	0"	100	70		
		10B	0"	100	71		
		10C	0"	100	69		
11	--	11A	0"	100	65		
		11B	0"	100	54		
		11C	0"	100	45		
12	<u>53'-6"</u>	12A	0"	100	48		
		12B	0"	100	48		
		12C	0"	100	60		
13	--	13A	0"	100	55		
		13B	0"	100	55		
		13C	0"	100	62		
14	<u>43'-0"</u>	14A	0"	100	48		
		14B	0"	100	45		
		14C	0"	100	46		

FIELD MONITORING AND SAMPLING FORM

Sampling Date November 1, 1978

Sampling Personnel James Walsh, Steven Nathanson, and Riley Kidman

Time Started 9:00a.m. Time Finished 5:30p.m.

Weather Conditions Clear and cool with temperatures around 60 degrees F.

Soil Conditions Somewhat wet from early morning dew. However, most of this moisture should have been confined to the surface.

Notes and Observations No new or major problems were encountered. Polypropylene sample bottles usually used for the collection of samples for GC analysis were evacuated in the laboratory before samples were secured in the field. GC samples were then collected from the "B" probes in all Phase I wells for a total of 14 samples. In addition, a total of 15 traps were prepared at the University of Cincinnati in preparation for the collection of samples for toxic gas analysis. Three traps were then used at each of the "B" depth probes in Wells I-4, I-6, I-11, III-2, and III -4.

Well No.	Water Level	Probe No.	Gascope Readings			Sample taken for GC Analysis	Sample taken for GC/MS Analysis
			Pressure	% LEL	% Gas		
1	--	1A	0"	100	46		
		1B	0"	100	52	X	
		1C	0"	100	48		
2	<u>Dry at 53'-6"</u>	2A	0"	100	68		
		2B	0"	100	62	X	
		2C	0"	100	65		
3	--	3A	0"	100	72		
		3B	0"	100	65	X	
		3C	0"	100	66		
4	<u>58'-0"</u>	4A	0"	100	58		
		4B	0"	100	58	X	XXX
		4C	0"	100	68		
5	--	5A	0"	100	52		
		5B	0"	100	57	X	
		5C	0"	100	55		
6	<u>60'-6"</u>	6A	0"	100	69		
		6B	0"	100	55	X	XXX
		6C	0"	100	63		
7	--	7A	0"	100	67		
		7B	0"	100	72	X	
		7C	0"	100	74		
8	<u>Dry</u>	8A	0"	100	72		
		8B	0"	100	74	X	
		8C	0"	100	71		

Well No.	Water Level	Probe No.	Gascope Readings			Sample taken for GC Analysis	Sample taken for GC/MS Analysis
			Pressure	% LEL	% Gas		
9	--	9A	0"	100	65		
		9B	0"	100	67	X	
		9C	0"	100	72		
10	Dry	10A	0"	100	68		
		10B	0"	100	65	X	
		10C	0"	100	69		
11	--	11A	0"	100	62		
		11B	0"	100	52	X	XXX
		11C	0"	100	56		
12	Dry	12A	0"	100	69		
		12B	0"	100	71	X	
		12C	0"	100	59		
13	--	13A	0"	100	64		
		13B	0"	100	68	X	
		13C	0"	100	58		
14	Dry at 44'-0"	14A	0"	100	79		
		14B	0"	100	68	X	
		14C	0"	100	72		



EXHIBIT C

Field Monitoring Results  
For Phase II Wells

# FIELD MONITORING AND SAMPLING FORM

Sampling Date 9-29-78  
Sampling Personnel Kevin Boyer  
Time Started 11:00 AM Time Finished 2:00 P.M.

Weather Conditions clear, sunny temperature about 80°F

Soil Conditions Dry

Notes and Observations Readings were taken with a Bachrach combustible gas meter borrowed from the Jefferson County Health Department. Phase II wells were monitored.

WELL No.	GASCOPE READINGS	
	% L.E.L.	% GAS
II-1	0	0
II-2	0	0
II-3	0	0
II-4	0	0
II-5	0	0
II-6	0	0
II-7	0	0
II-8	0	0
II-9	0	0
II-10	0	0
II-11	0	0
II-12	0	0
II-13	0	0
II-14	0	0

# FIELD MONITORING AND SAMPLING FORM

Sampling Date 10-2-78

Sampling Personnel Kevin Boyer and Robert Stearns

Time Started 7:00 PM Time Finished 8:00 PM

Weather Conditions Clear, Cool. Temperature about 65°F

Soil Conditions Very damp, not muddy.

Notes and Observations A small volume of water may have entered the gascope while monitoring well II-1. The meter continued to function properly. Only Phase II wells were monitored.

Well No.	Gascope Readings	
	% L.E.L.	% GAS
II-1	Water, no sample	
II-2	0	0
II-3	Water, no sample	
II-4	0	0
II-5	0	0
II-6	0	0
II-7	0	0
II-8	0	0
II-9	0	0
II-10	Water, no sample	
II-11	0	0
II-12	0	0
II-13	0	0
II-14	Water, no sample	

EXHIBIT D

Field Monitoring Results  
For Phase III Wells

Notes and Observations

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Well No.	Probe No.	Gascope Readings		Notes
		% LEL	% Gas	
III-1	A	100	51	
	B	100	51	
	C	100	46	
III-2	A	100	32	
	B	100	32	
	C	100	30	
III-3	A	100	50	
	B	100	54	
	C	100	55	
III-4	D	100	53	
	A	100	22	
	B	100	24	
III-5	C	100	9	
	A	0	0	
	B	0	0	
III-6	C	0	0	
	A	92	4	
	B	90	2	
III-7	C	87	2	
	A	100	66	
	B	100	67	
III-8	C	100	66	
	A	100	14	
	B	100	7	
W-1	C	100	5	
	-	100	53	
	-	100	51	
W-2	-	100	30	
W-3	-	100	0	
W-4	-	0	0	

FIELD MONITORING AND SAMPLING FORM

Sampling Date November 1, 1978

Sampling Personnel James Walsh, Steven Nathanson, and Riley Kinman

Time Started 9:00 a.m. Time Finished 6:00 p.m.

Weather Conditions Clear and cool with temperatures around 60 degrees f.

Soil Conditions Somewhat wet from early morning dew. However, most of this moisture should be confined only to the surface.

Notes and Observations. Three traps were used at each of the "B" depth probes at Wells III-2 and III-4 to collect samples for toxic gas analysis.

Well No.	Probe No.	Gascope Readings		Notes
		% LEL	% Gas	
III-1	A	100	9	
	B	100	21	
	C	100	36	
III-2	A	100	12	
	B	100	18	
	C	100	15	
III-3	A	100	48	
	B	100	30	
	C	100	24	
	D	100	34	
III-4	A	100	0	
	B	100	19	
	C	100	17	
III-5	A	0	0	
	B	0	0	
	C	0	0	
III-6	A	0	0	
	B	84	5	
	C	78	3	
III-7	A	100	62	
	B	100	63	
	C	100	61	
III-8	A	100	26	
	B	100	28	
	C	100	16	
W-1	-	100	12	
W-2	-	100	64	
W-3	-	100	33	
W-4	-	0	0	